

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP)  
OFFICE OF AIR MANAGEMENT**

**Rumpke of Indiana, LLC - Medora Sanitary Landfill  
546 County Road 870 West  
Medora, Indiana 47260**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F071-11615-00038	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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**Certification Form**  
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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary municipal solid waste sanitary landfill and solidification process.

Authorized individual: William J. Rumpke  
Source Address: 546 County Road 870 West, Medora, Indiana 47260  
Mailing Address: 10795 Hughes Road, Cincinnati, Ohio 45251-4598  
Phone Number: 513-851-0122, extension 3162  
SIC Code: 4953  
County Location: Jackson  
County Status: Attainment for all criteria pollutants  
Source Status: Federally Enforceable State Operating Permit (FESOP)  
Minor Source, under PSD Rules;

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) one (1) municipal solid waste sanitary landfill generating landfill gas, with a maximum design capacity of 2,040,200 megagrams (Mg), with passive venting of the landfill gas;
- (b) one (1) non-hazardous industrial and commercial liquid waste solidification process, located in a portable steel basin for mixing liquid waste, solid waste, and mixing agents, with a maximum throughput of 1,667 gallons per hour of liquid waste, 65 tons per hour of solidified waste, and 50 tons per hour of mixing agent; and
- (c) mixing agent and solid waste material handling operations.

### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

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This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Propane or liquified petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour including:
  - (1) one (1) new shop propane furnace, rated at 0.11 MMBtu per hour;
  - (2) one (1) new break room propane furnace, rated at 0.09 MMBtu per hour; and
  - (3) one (1) old shop propane furnace, rated at 0.11 MMBtu per hour.
- (b) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight including:
  - (1) two (2) kerosene steam washers, each rated at 0.0231 MMBtu per hour.

- (c) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour including:
  - (1) two (2) gasoline-fired water pumps, each rated at 8 horsepower (HP);
  - (2) one (1) gasoline-fired generator, rated at 16 HP;
  - (3) one (1) gasoline-fired tire cutter, rated at 18 HP;
  - (4) one (1) gasoline-fired pressure washer, rated at 11 HP;
  - (5) one (1) diesel-fired water pump, rated at 50 HP; and
  - (6) one (1) diesel-fired light plant, rated at 30 HP.
- (d) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons, which includes:
  - (1) one (1) 550 gallon gasoline storage tank.
- (e) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month, which includes:
  - (1) one (1) diesel on-road 2,000 gallon storage tank; and
  - (2) one (1) kerosene 250 gallon storage tank.
- (f) VOC and HAP storage vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids including:
  - (1) one (1) 550 gallon hydraulic oil storage tank;
  - (2) one (1) 550 gallon motor oil storage tank; and
  - (3) one (1) 250 gallon waste motor oil storage tank.
- (g) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment, including:
  - (1) maintenance light welding.
- (h) Paved and unpaved roads and parking lots with public access.
- (i) Other categories with emissions below insignificant thresholds:
  - (1) mixing agent storage piles;
  - (2) one (1) 1,000 gallon propane storage tank;
  - (3) one (1) 480,000 gallon leachate surface impoundment for leachate storage, with potential VOC emissions of 0.001 tons per year;
  - (4) one (1) 12,000 gallon diesel off-road storage tank, with potential VOC emissions of 0.0097 ton per year;
  - (5) maintenance cold cleaner degreasers, with a maximum annual usage of 240 gallons of solvent, and potential VOC emissions of less than 15 pounds per day; and
  - (6) Maintenance drilling.

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This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

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A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAM, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

## SECTION B GENERAL CONDITIONS

### B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

### B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-7 shall prevail.

### B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

### B.4 Enforceability [326 IAC 2-8-6]

- (a) All terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM.
- (b) Unless otherwise stated, terms and conditions of this permit, including any provisions to limit the source's potential to emit, are enforceable by the United States Environmental Protection Agency (U.S. EPA) and citizens under the Clean Air Act.

### B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

### B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

### B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015
- (b) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that IDEM, OAM, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
- (c) Upon request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAM, along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAM, or the



U.S. EPA, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

**B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]**

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IDEM, OAM may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]**

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- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]**

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted under this permit shall contain certification by a authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015
- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:

- (1) The identification of each term or condition of this permit that is the basis of the certification;
- (2) The compliance status;
- (3) Whether compliance was based on continuous or intermittent data;
- (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
- (5) Such other facts as specified in Sections D of this permit, IDEM, OAM, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

**B.14 Emergency Provisions [326 IAC 2-8-12]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the

following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Management, Compliance Section) or,  
Telephone No.: 317-233-5674 (ask for Compliance Section)  
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAM, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any

emergency or upset provision contained in any applicable requirement.

- (e) IDEM, OAM, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAM, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.15** Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
  - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) An emergency as defined in 326 IAC 2-7-1(12); or
  - (3) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.
  - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Proper notice submittal under 326 IAC 2-8-12 satisfies the requirement of this subsection.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination**  
**[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)]
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAM, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
  - (1) A timely renewal application is one that is:
    - (A) Submitted at least nine (9) months prior to the date of the expiration of

this permit; and

- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (2) If IDEM, OAM upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]  
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAM takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAM, any additional information identified as needed to process the application.

**B.18 Permit Amendment or Modification [326 IAC 2-8-10] [326 IAC 2-8-11.1]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1) only if a certification is required by the terms of the applicable rule.
- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.19 Operational Flexibility [326 IAC 2-8-15]**

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- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:
  - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any approval required by 326 IAC 2-1.1 has been obtained;
  - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
  - (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAM, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAM or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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**B.20 Construction Permit Requirement [326 IAC 2]**

A modification, construction, or reconstruction shall be approved if required by and in

accordance with the applicable provisions of 326 IAC 2.

**B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.  
[326 IAC 2-8-5(a)(4)]

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request.  
[326 IAC 2-8-10(b)(3)]

**B.23 Annual Fee Payment [326 IAC 2-8-4(6)][326 IAC 2-8-16]**

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- (a) The Permittee shall pay annual fees to IDEM, OAM, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.



- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

**B.24** Advanced Source Modification Approval [326 IAC 2-8-4(11)]

The requirements to obtain a permit revision under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3 if such modifications occur during the term of this permit.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source
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### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD));
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), emissions of non-fugitive particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

#### C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

#### C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

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The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. The provisions of 326 IAC 9-1-2 are not federally enforceable.

**C.5 Fugitive Dust Emissions [326 IAC 6-4]**

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The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]**

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Except as otherwise provided in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

**C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]**

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(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control

The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

- (f) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.8 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **C.9 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

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Compliance with applicable requirements shall be documented as required by this permit. All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**C.10 Monitoring Methods [326 IAC 3]**

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Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**C.11 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

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Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within ninety (90) days from the date of issuance of this permit.

The ERP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) If the ERP is disapproved by IDEM, OAM, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAM, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

**C.12 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]**

---

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

- (a) Submit:

- (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or

- (2) As a part of the compliance certification submitted under 326 IAC 2-8-5(a)(1), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
  - (3) A verification to IDEM, OAM, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAM, that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**C.13 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]  
[326 IAC 2-8-5]**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**C.14 Monitoring Data Availability**

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- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements in (a) above.

**C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]**

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- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)]**

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- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.

The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

### **Stratospheric Ozone Protection**

#### **C.17 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.



## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (a) one (1) municipal solid waste sanitary landfill generating landfill gas, with a maximum design capacity of 2,040,200 megagrams (Mg), with passive venting of the landfill gas;
- (b) one (1) non-hazardous industrial and commercial liquid waste solidification process, located in a portable steel basin for mixing liquid waste, solid waste, and mixing agents, with a maximum throughput of 1,667 gallons per hour of liquid waste, 65 tons per hour of solidified waste, and 50 tons per hour of mixing agent; and
- (c) mixing agent and solid waste material handling operations.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 Municipal Solid Waste Landfill NSPS [326 IAC 12] [40 CFR 60.752, Subpart WWW]

- (a) Pursuant to 40 CFR 60.752(a), this municipal solid waste landfill having a design capacity less than 2.5 million megagrams (Mg) by mass, was required to submit an initial design capacity report no later than June 10, 1996. The Permittee's initial design capacity report was submitted on June 13, 1996.
- (b) If the design capacity of this landfill is increased to or above 2.5 million Mg, the following shall apply:
  - (1) Pursuant to 40 CFR 60.752(a)(1), an amended design capacity report shall be submitted to the Office of Air Management (OAM), pursuant to 40 CFR 60.757(a)(3), providing notification of any increase in the design capacity of the landfill, within ninety (90) days of an increase in the maximum design capacity of the landfill to or above 2.5 million Mg.
  - (2) Pursuant to 40 CFR 60.752(a)(2), the landfill shall comply with the provision of 40 CFR 60.752(b).
  - (3) The source shall be subject to 326 IAC 2-7 (Part 70 Permit Program) and shall apply for a Part 70 operating permit within twelve (12) months after this source becomes subject to Title V. The source may apply for a Part 70 operating permit and revocation of its FESOP under the provisions of 326 IAC 2-8-19 (Transition from a FESOP to a Part 70 Permit).

#### D.1.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4]

The throughput of liquid waste to the solidification process shall not exceed 6,240,000 gallons per twelve (12) consecutive month period, rolled on a monthly basis. The concentration of any single HAP, that is also a VOC, shall not exceed 200 milligrams (mg) per liter. This will limit source-wide potential single HAP emissions to less than 10 tons per year, and source-wide potential total HAP emissions to less than 25 tons per year.

#### D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

- (a) The particulate matter (PM) emissions from the mixing agent loading and unloading operations shall not exceed 44.58 pounds per hour, when operating at a maximum process weight rate of 100,000 pounds per hour.
- (b) The particulate matter (PM) emissions from each of the solidified waste and solid waste

or refuse loading and unloading operations shall not exceed 47.05 pounds per hour, when each is operating at a maximum process weight rate of 130,000 pounds per hour.

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

### **Compliance Determination Requirements**

#### **D.1.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]**

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the HAP or PM limits specified in Conditions D.1.2 and D.1.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### **D.1.5 Record Keeping Requirements**

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain records of the throughput of liquid waste, in gallons, to the solidification process. The records shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP emission limits established in Condition D.1.2.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.1.6 Reporting Requirements**

A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### **Facility Description [326 IAC 2-8-4(10)]:**

Insignificant Activity:

- (c) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour including:
  - (1) two (2) gasoline-fired water pumps, each rated at 8 horsepower (HP);
  - (2) one (1) gasoline-fired generator, rated at 16 HP;
  - (3) one (1) gasoline-fired tire cutter, rated at 18 HP;
  - (4) one (1) gasoline-fired pressure washer, rated at 11 HP.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

#### **D.2.1 Carbon Monoxide (CO) [326 IAC 2-8-4]**

- (a) The total gasoline usage in the two (2) gasoline-fired water pumps, the gasoline-fired generator, the gasoline-fired tire cutter, and the gasoline-fired pressure washer shall not exceed 23,717 gallons per twelve (12) consecutive month period, rolled on a monthly basis.
- (b) The heating value of the gasoline shall not exceed 130,000 Btu per gallon.

This will limit source-wide CO emissions to less than 100 tons per year, therefore, 326 IAC 2-7 (Part 70 Permit Program) does not apply.

### **Compliance Determination Requirement**

#### **D.2.2 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]**

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the CO limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### **D.2.3 Record Keeping Requirements**

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records of the throughput of gasoline, in gallons, to the two (2) gasoline-fired water pumps, the gasoline-fired generator, the gasoline-fired tire cutter, and the gasoline-fired pressure washer and the heating value of the gasoline. The records shall be taken monthly and shall be complete and sufficient to establish compliance with the CO emission limit established in Condition D.2.1.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.2.4 Reporting Requirements

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A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

## SECTION D.3

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

#### Insignificant Activities:

- (1) one (1) 12,000 gallon diesel off-road storage tank, with potential VOC emissions of 0.0097 ton per year; and
- (2) maintenance cold cleaner degreasers, with a maximum annual usage of 240 gallons of solvent, and potential VOC emissions of less than 15 pounds per day.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.3.1 Volatile Organic Compounds (VOCs) [326 IAC 12] [40 CFR 60.110b, Subpart Kb]

Pursuant to 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels), the one (1) 12,000 gallon diesel off-road storage tank, with a storage capacity less than 75 cubic meters, is subject to 40 CFR Part 60.116b, paragraphs (a) and (b), which require record keeping.

#### D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator of the maintenance cold cleaner degreasers shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

### Compliance Determination Requirement

#### D.3.3 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the VOC limits specified in Conditions D.3.1 and D.3.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

### Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

#### D.3.4 Record Keeping Requirements

- (a) To document compliance with Condition D.3.1, the Permittee shall maintain permanent records at the source in accordance with (1) and (2) below:

- (1) the dimension of the storage vessel; and

- (2) an analysis showing the capacity of the storage vessel.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Rumpke of Indiana, LLC - Medora Sanitary Landfill  
Source Address: 546 County Road 870 West, Medora, Indiana 47260  
Mailing Address: 10795 Hughes Road, Cincinnati, Ohio 45251-4598  
FESOP No.: F017-11615-00038

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION  
P.O. Box 6015  
100 North Senate Avenue  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY/DEVIATION OCCURRENCE REPORT**

Source Name: Rumpke of Indiana, LLC - Medora Sanitary Landfill  
Source Address: 546 County Road 870 West, Medora, Indiana 47260  
Mailing Address: 10795 Hughes Road, Cincinnati, Ohio 45251-4598  
FESOP No.: F017-11615-00038

**This form consists of 2 pages**

**Page 1 of 2**

Check either No. 1 or No.2	
<b>9</b>	1. This is an emergency as defined in 326 IAC 2-7-1(12) CThe Permittee must notify the Office of Air Management (OAM), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16
<b>9</b>	2. This is a deviation, reportable per 326 IAC 2-8-4(3)(C) CThe Permittee must submit notice in writing within ten (10) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency/Deviation:
Describe the cause of the Emergency/Deviation:



Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/deviation:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

## COMPLIANCE DATA SECTION

### FESOP Quarterly Report

Source Name: Rumpke of Indiana, LLC - Medora Sanitary Landfill  
Source Address: 546 County Road 870 West, Medora, Indiana 47260  
Mailing Address: 10795 Hughes Road, Cincinnati, Ohio 45251-4598  
FESOP No.: F017-11615-00038  
Facility: solidification process  
Parameter: throughput of liquid waste  
Limit: The throughput of liquid waste to the solidification process shall not exceed 6,240,000 gallons per twelve (12) consecutive month period, rolled on a monthly basis.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Liquid Waste Throughput This Month (gallons)	Liquid Waste Throughput Previous 11 Months (gallons)	12 Month Total Liquid Waste Throughput (gallons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

### FESOP Quarterly Report

Source Name: Rumpke of Indiana, LLC - Medora Sanitary Landfill  
Source Address: 546 County Road 870 West, Medora, Indiana 47260  
Mailing Address: 10795 Hughes Road, Cincinnati, Ohio 45251-4598  
FESOP No.: F017-11615-00038  
Facility: two (2) gasoline-fired water pumps, the gasoline-fired generator, the gasoline-fired tire cutter, and the gasoline-fired pressure washer  
Parameter: throughput of gasoline, CO emissions  
Limit: The total gasoline usage in the two (2) gasoline-fired water pumps, the gasoline-fired generator, the gasoline-fired tire cutter, and the gasoline-fired pressure washer shall not exceed 23,717 gallons per twelve (12) consecutive month period, rolled on a monthly basis. The heating value of the gasoline shall not exceed 130,000 Btu per gallon. This shall limit CO emissions to less than 100 tons per year.

YEAR: \_\_\_\_\_

Month	Gasoline Heating Value (Btu/gal)	Column 1	Column 2	Column 1 + Column 2
		Gasoline Throughput This Month (gallons)	Gasoline Throughput Previous 11 Months (gallons)	12 Month Total Gasoline Throughput (gallons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Mail to: Permit Administration & Development Section  
Office Of Air Management  
100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-6015

Rumpke of Indiana, LLC  
10795 Hughes Road  
Cincinnati, Ohio 45251

**Affidavit of Construction**

I, \_\_\_\_\_, being duly sworn upon my oath, depose and say:  
(Name of the Authorized Representative)

1. I live in \_\_\_\_\_ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of \_\_\_\_\_ for \_\_\_\_\_.  
(Title) (Company Name)
3. By virtue of my position with \_\_\_\_\_, I have personal  
(Company Name)  
knowledge of the representations contained in this affidavit and am authorized to make  
these representations on behalf of \_\_\_\_\_.  
(Company Name)
4. I hereby certify that Rumpke of Indiana, LLC - Medora Sanitary Landfill, 546 County Road 870 West, Medora, Indiana, 47260, has constructed the solidification process in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on August 9, 1999 and as permitted pursuant to **Operation Permit No. F-017-11615, Plant ID No. 017-00038** issued on \_\_\_\_\_.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

STATE OF INDIANA)  
)SS

COUNTY OF \_\_\_\_\_ )

Subscribed and sworn to me, a notary public in and for \_\_\_\_\_ County and State of  
Indiana on this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.  
My Commission expires: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name (typed or printed)

Section 10: Affidavit.wpd 12/96

**Indiana Department of Environmental Management  
Office of Air Management**

**Addendum to the  
Technical Support Document for Federally Enforceable State Operating  
Permit (FESOP)**

**Source Name:** Rumpke of Indiana, LLC - Medora Sanitary Landfill  
**Source Location:** 546 County Road 870 West, Medora, Indiana 47260  
**County:** Jackson  
**SIC Code:** 4953  
**Operation Permit No.:** F071-11615-00038  
**Permit Reviewer:** Trish Earls/EVP

On March 4, 2000, the Office of Air Management (OAM) had a notice published in The Tribune, Seymour, Indiana, stating that Rumpke of Indiana, LLC - Medora Sanitary Landfill had applied for a Federally Enforceable State Operating Permit (FESOP) to operate a stationary municipal solid waste sanitary landfill and solidification process. The notice also stated that OAM proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP should be issued as proposed.

On March 16, 2000, Chris Meyer submitted comments on behalf of Rumpke of Indiana, LLC. The summary of the comments and responses is as follows:

**Comment #1**

In the Table of Contents of the FESOP, there were some typographical errors. A condition D.3.3 (Preventive Maintenance Plan) was incorrectly listed under section D.3. The remaining conditions under section D.3 were incorrectly numbered in both the Table of Contents and in section D.3 on page 29 of the FESOP.

**Response #1**

The typographical errors in the Table of Contents of the FESOP have been corrected. The conditions in section D.3 previously numbered D.3.4 and D.3.5 have been re-numbered to D.3.3 and D.3.4.

**Comment #2**

In the Limited Potential to Emit table on page 5 of the Technical Support Document (TSD), the PM emissions from unpaved roadways listed in the table should be the potential emissions of 340.56 tons per year. Also, the total PM-10 emissions on the table should only include non-fugitive PM-10.

**Response #2**

Since controls on fugitive PM emissions from unpaved roadways are not federally enforceable, the potential PM emissions from unpaved roadways should be listed in the Limited Potential to Emit table of the TSD. The table is now revised to list PM emissions of 340.56 tons per year.

Since fugitive emissions are not counted toward PSD applicability, only the non-fugitive PM emissions

were listed in the table. The same will be done for PM-10 emissions. The revised Limited Potential to Emit table now reads as follows:

### Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)							
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO***	NO <sub>x</sub>	Single HAP	HAPs
Solidification Process	0.0	0.0	0.0	13.74	0.0	0.0	5.21	13.61
Sanitary Landfill	0.0	0.0	0.0	8.17	0.0	0.0	2.16	6.52
Storage Piles*	3.88	1.36	0.0	0.0	0.0	0.0	0.0	0.0
Material Handling	13.74	6.50	0.0	0.0	0.0	0.0	0.0	0.0
Unpaved Roadways*	<del>470.28</del> <b>340.56</b>	73.11	0.0	0.0	0.0	0.0	0.0	0.0
IC Engines*	0.92	0.92	0.85	5.55	99.0	13.37	negl.	negl.
Storage Tanks & Degreasing*	0.0	0.0	0.0	0.83	0.0	0.0	0.0	0.0
Total Emissions**	0.92	<del>81.89</del> <b>0.92</b>	0.85	28.29	99.0	13.37	5.21	20.13

\* These are Insignificant Activities.

\*\* Total PM **and PM-10** emissions are non-fugitive PM **and PM-10** emissions only.

\*\*\*By limiting CO emissions in the IC engines through a fuel usage limitation, all other emissions from the engines are also limited.

## **Indiana Department of Environmental Management Office of Air Management**

### **Technical Support Document (TSD) for a Federally Enforceable Operating Permit (FESOP)**

#### **Source Background and Description**

**Source Name:** Rumpke of Indiana, LLC - Medora Sanitary Landfill  
**Source Location:** 546 County Road 870 West, Medora, Indiana 47260  
**County:** Jackson  
**SIC Code:** 4953  
**Operation Permit No.:** F071-11615-00038  
**Permit Reviewer:** Trish Earls/EVP

The Office of Air Management (OAM) has reviewed a FESOP application from Rumpke of Indiana, LLC relating to the operation of a municipal solid waste sanitary landfill and solidification process.

#### **Permitted Emission Units and Pollution Control Equipment**

There are no permitted facilities operating at this source during this review process.

#### **Unpermitted Emission Units and Pollution Control Equipment**

The source also consists of the following unpermitted facilities/units:

- (a) one (1) municipal solid waste sanitary landfill generating landfill gas, with a maximum design capacity of 2,040,200 megagrams (Mg), with passive venting of the landfill gas.

#### **New Emission Units and Pollution Control Equipment Receiving Prior Approval**

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-8-4(11):

- (a) one (1) non-hazardous industrial and commercial liquid waste solidification process, located in a portable steel basin for mixing liquid waste, solid waste, and mixing agents, with a maximum throughput of 1,667 gallons per hour of liquid waste, 65 tons per hour of solidified waste, and 50 tons per hour of mixing agent; and
- (b) mixing agent and solid waste material handling operations.

#### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Propane or liquified petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour including:
  - (1) one (1) new shop propane furnace, rated at 0.11 MMBtu per hour;
  - (2) one (1) new break room propane furnace, rated at 0.09 MMBtu per hour; and
  - (3) one (1) old shop propane furnace, rated at 0.11 MMBtu per hour.
- (b) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight including:
  - (1) two (2) kerosene steam washers, each rated at 0.0231 MMBtu per hour.
- (c) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour including:
  - (1) two (2) gasoline-fired water pumps, each rated at 8 horsepower (HP);
  - (2) one (1) gasoline-fired generator, rated at 16 HP;
  - (3) one (1) gasoline-fired tire cutter, rated at 18 HP;
  - (4) one (1) gasoline-fired pressure washer, rated at 11 HP;
  - (5) one (1) diesel-fired water pump, rated at 50 HP; and
  - (6) one (1) diesel-fired light plant, rated at 30 HP.
- (d) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons, which includes:
  - (1) one (1) 550 gallon gasoline storage tank.
- (e) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month, which includes:
  - (1) one (1) diesel on-road 2,000 gallon storage tank; and
  - (2) one (1) kerosene 250 gallon storage tank.
- (f) VOC and HAP storage vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids including:
  - (1) one (1) 550 gallon hydraulic oil storage tank;
  - (2) one (1) 550 gallon motor oil storage tank; and
  - (3) one (1) 250 gallon waste motor oil storage tank.
- (g) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment, including:
  - (1) maintenance light welding.
- (h) Paved and unpaved roads and parking lots with public access.
- (i) Other categories with emissions below insignificant thresholds:
  - (1) mixing agent storage piles;
  - (2) one (1) 1,000 gallon propane storage tank;
  - (3) one (1) 480,000 gallon leachate surface impoundment for leachate storage, with



- (4) potential VOC emissions of 0.001 tons per year;  
one (1) 12,000 gallon diesel off-road storage tank, with potential VOC emissions of 0.0097 ton per year;
- (5) maintenance cold cleaner degreasers, with a maximum annual usage of 240 gallons of solvent, and potential VOC emissions of less than 15 pounds per day;  
and
- (6) Maintenance drilling.

### Enforcement Issue

The existing municipal solid waste landfill was modified after May 30, 1991, and is therefore subject to the New Source Performance Standard, 40 CFR 60.750 through 60.759, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills. However, pursuant to 40 CFR 60.752(c), the landfill was not required to obtain a Part 70 operating permit since it has a design capacity of less than 2.5 million Mg.

Also, since potential VOC and single HAP emissions from the existing landfill are each less than 10 tons per year and potential total HAP emissions from the landfill are less than 25 tons per year, the existing landfill is exempt from permitting requirements pursuant to 326 IAC 2-1.1-3 (Exemptions). The equipment powered by internal combustion engines listed under the Insignificant Activities are also exempt from permitting requirements pursuant to 326 IAC 2-1.1-3(d)(5)(B).

Therefore, there are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

Two (2) applications for the purposes of this review were received on August 9, 1999, and November 30, 1999. Both applications are now being combined into one FESOP application. Additional information received on February 11, 2000, makes the FESOP application administratively complete.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations (10 pages).

### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

Pollutant	Potential To Emit (tons/year)
Fugitive PM	358.18

Non-fugitive PM	0.96
PM-10	81.93
SO <sub>2</sub>	0.88
VOC	47.81
CO	119.63
NO <sub>x</sub>	13.80

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Cresol & Isomers	greater than 10
Methyl Ethyl Ketone	greater than 10
Chlorobenzene	less than 10
Toluene	less than 10
Xylene	less than 10
TOTAL	greater than 25

Note: Due to the large number of HAPs emitted by this source, only the five HAPs with the highest potential emissions were shown here. For more detailed HAP emission calculations see pages 7 and 9 of Appendix A.

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of CO is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.
- (d) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### Actual Emissions

No previous emission data has been received from the source.

### Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)
--	--

Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO***	NO <sub>x</sub>	Single HAP	HAPs
Solidification Process	0.0	0.0	0.0	13.74	0.0	0.0	5.21	13.61
Sanitary Landfill	0.0	0.0	0.0	8.17	0.0	0.0	2.16	6.52
Storage Piles*	3.88	1.36	0.0	0.0	0.0	0.0	0.0	0.0
Material Handling	13.74	6.50	0.0	0.0	0.0	0.0	0.0	0.0
Unpaved Roadways*	170.28	73.11	0.0	0.0	0.0	0.0	0.0	0.0
IC Engines*	0.92	0.92	0.85	5.55	99.0	13.37	negl.	negl.
Storage Tanks & Degreasing*	0.0	0.0	0.0	0.83	0.0	0.0	0.0	0.0
<b>Total Emissions**</b>	<b>0.92</b>	<b>81.89</b>	<b>0.85</b>	<b>28.29</b>	<b>99.0</b>	<b>13.37</b>	<b>5.21</b>	<b>20.13</b>

\* These are Insignificant Activities.

\*\* Total PM emissions are non-fugitive PM emissions only.

\*\*\*By limiting CO emissions in the IC engines through a fuel usage limitation, all other emissions from the engines are also limited.

### County Attainment Status

The source is located in Jackson County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Jackson County has been designated as attainment or unclassifiable for ozone.

### Federal Rule Applicability

- (a) The municipal solid waste landfill at this source is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.750 through 60.759, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills), because the landfill was modified after May 30, 1991. However, the landfill has a design capacity less than 2.5 million megagrams (Mg), therefore, it is only subject to the requirements of 40 CFR 60.752(a), and is not subject to any of the other requirements of the subpart. Pursuant to 40 CFR 60.752(a), the source was required to submit an initial design capacity report to IDEM. Rumpke of Indiana, LLC submitted a design capacity report in 1996 to IDEM as required. The design capacity of this landfill is 2,040,200 Mg.
- (b) The one (1) 12,000 gallon diesel off-road storage tank is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.11b, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels" since the tank, which was

constructed in 1998, was constructed after July 23, 1984, and has a storage capacity of greater than 40 cubic meters. However, since the tank has a storage capacity less than 75 cubic meters, it is subject to only 40 CFR Part 60.116b, paragraphs (a) and (b) which require record keeping.

- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

#### **State Rule Applicability - Entire Source**

##### **326 IAC 2-2 (Prevention of Significant Deterioration (PSD))**

This source is not subject to the requirements of this rule since potential non-fugitive emissions of all criteria pollutants is less than 250 tons per year. Although this landfill is subject to the NSPS, 40 CFR 60.750, Subpart WWW, it is only subject to the requirements of 40 CFR 60.752(a), which requires an initial design capacity report, and is exempt from all other requirements of the subpart. Therefore, since the landfill is not regulated by the standards of Subpart WWW, fugitive emissions are not counted toward PSD applicability.

##### **326 IAC 2-6 (Emission Reporting)**

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it is located in Jackson County, and has potential emissions of PM-10, SO<sub>2</sub>, VOC, CO and NOx less than 100 tons per year per pollutant, therefore, 326 IAC 2-6 does not apply.

##### **326 IAC 2-8 (FESOP)**

This source will limit the throughput of liquid waste to the solidification process to 6,240,000 gallons per twelve (12) consecutive month period, rolled on a monthly basis. This will limit potential single HAP emissions to less than 10 tons per year, and potential total HAP emissions to less than 25 tons per year. The source will also limit the total gasoline usage in the two (2) gasoline-fired water pumps, the gasoline-fired generator, the gasoline-fired tire cutter, and the gasoline-fired pressure washer to 23,717 gallons per twelve (12) consecutive month period, rolled on a monthly basis. The heating value of the gasoline shall not exceed 130,000 Btu per gallon. This will limit source-wide CO emissions to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 (Part 70 Permit Program) do not apply.

##### **326 IAC 5-1 (Visible Emissions Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

##### **326 IAC 6-4 (Fugitive Dust Emissions)**

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

#### **State Rule Applicability - Individual Facilities**

##### **326 IAC 2-4.1-1 (New Source Toxics Control)**

This source is not subject to the requirements of this rule because it has accepted federally

enforceable permit conditions which will limit the potential to emit of any single HAP and any combination of HAPs to less than 10 and 25 tons per year, respectively.

**326 IAC 6-3-2 (Process Operations)**

- (a) The particulate matter (PM) emissions from the mixing agent loading and unloading operations shall not exceed 44.58 pounds per hour, based on a maximum mixing agent throughput rate of 50 tons per hour.
- (b) The particulate matter (PM) emissions from each of the solidified waste and solid waste or refuse loading and unloading operations shall not exceed 47.05 pounds per hour, based on a maximum solidified waste throughput of 65 tons per hour.

These emission limits are based on the following:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Potential PM emissions from each of these operations is less than the 326 IAC 6-3-2 allowable emission rates. Therefore, these operations are in compliance with this rule. Although the above emission limits, when combined and converted to tons per year based on 8,760 hours of operation per year, are equivalent to PM emissions of 401 tons per year, these are fugitive emissions and are therefore not counted towards PSD applicability.

**326 IAC 8-1-6 (New Facilities, General Reduction Requirements)**

This rule applies to facilities constructed after January 1, 1980, with potential VOC emissions greater than or equal to 25 tons per year. The solidification process and the sanitary landfill are not subject to this rule because each has potential VOC emissions less than 25 tons per year. The sanitary landfill was also constructed prior to January 1, 1980.

**326 IAC 8-3-2 (Cold Cleaner Operations)**

The maintenance cold cleaner degreasers are subject to the requirements of this rule because the degreasers were constructed after January 1, 1980 and are cold cleaner degreasers with remote solvent reservoirs. Pursuant to 326 IAC 8-3-2, the owner or operator of the maintenance cold cleaner degreasers shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

**Compliance Requirements**

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in

conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no compliance monitoring requirements applicable to this source at this time. Since there are no compliance monitoring requirements at this time, the FESOP Quarterly Compliance Monitoring Report was not included in the FESOP.

### **Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) FESOP Application Form GSD-08.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See attached calculations for detailed air toxic calculations. (Appendix A, pages 7 and 9)

### **Conclusion**

The operation of this municipal solid waste sanitary landfill and solidification process shall be subject to the conditions of the attached proposed **FESOP No.: F071-11615-00038**.

**Appendix A: Emission Calculations Summary**

**Company Name:** Rumpke of Indiana, LLC  
**Address City IN Zip:** 546 County Road 870 West, Medora, Indiana 47260  
**Operating Permit No.:** 071-11615  
**Plt ID:** 071-00038  
**Reviewer:** Trish Earls  
**Date:** November 30, 1999

<b>Potential Emissions (tons/year)</b>					
Emissions Generating Activity					
Pollutant	Storage Piles, Material Handling and Unpaved Roadways	Solidification Process	Sanitary Landfill	Insignificant Activities (IC Engines, Storage Tanks & Degreasing)	TOTAL
PM*	358.18	0.00	0.00	0.96	359.14
PM10	80.97	0.00	0.00	0.96	81.93
SO2	0.00	0.00	0.00	0.88	0.88
NOx	0.00	0.00	0.00	13.80	13.80
VOC	0.00	32.16	8.17	7.48	47.81
CO	0.00	0.00	0.00	119.63	119.63
total HAPs**	0.00	31.86	6.52	negl.	38.38
worst case single HAP***	0.00	12.19	2.16	negl.	12.19
Total emissions based on rated capacity at 8,760 hours/year.					
<b>Limited Emissions (tons/year)</b>					
Emissions Generating Activity					
Pollutant	Storage Piles, Material Handling and Unpaved Roadways	Solidification Process	Sanitary Landfill	Insignificant Activities (IC Engines, Storage Tanks & Degreasing)	TOTAL
PM*	184.21	0.00	0.00	0.92	185.13
PM10	43.12	0.00	0.00	0.92	44.04
SO2	0.00	0.00	0.00	0.85	0.85
NOx	0.00	0.00	0.00	13.37	13.37
VOC	0.00	13.74	8.17	6.38	28.29
CO	0.00	0.00	0.00	99.00	99.00
total HAPs**	0.00	13.61	6.52	negl.	20.13
worst case single HAP***	0.00	5.21	2.16	negl.	5.21
Limited solidification process emissions based on limited liquid waste throughput of 6,240,000 gal/yr. Unpaved roadway emissions are controlled by watering with a 50% control efficiency. Storage pile emissions are controlled by a synthetic tarp which covers the storage piles. Limited Insignificant Activity emissions are based on a gasoline fuel usage limitation of 23,717 gallons per year for the gasoline-fired IC engines.					

## Appendix A: Emission Calculations Particulate Matter Emissions

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**Company Name:** Rumpke of Indiana, LLC  
**Address City IN Zip:** 546 County Road 870 West, Medora, Indiana 47260  
**Operating Permit No.:** 071-11615  
**Plt ID:** 071-00038  
**Reviewer:** Trish Earls  
**Date:** November 30, 1999

Note: The following emission calculations represent the maximum potential uncontrolled PM and PM10 emissions based on a maximum refuse acceptance rate of 65 tons per hour.

### Mixing Agent Storage Piles

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

Material	Silt Content (wt %)	Pile Size (acres)	PM Emissions tons/yr	P M-10 Emissions tons/yr	Controlled PM Emissions tons/yr	Controlled PM Emissions tons/yr
Fly Ash	90.0	0.10	3.88	1.36		
<b>Total</b>			<b>3.88</b>	<b>1.36</b>	<b>0.19</b>	<b>0.07</b>

Note: Although several different types of mixing agents are used, fly ash represents the worst case scenario for PM emissions from wind erosion.

PM-10 emissions are assumed to be 35% of PM emissions.

Controlled emissions are based on a 95% control efficiency for synthetic tarp assumed to be similar to enclosure control efficiency from RACM Document Table 2.1.2-8.

### METHODOLOGY

$$\begin{aligned}
 E_f &= 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15) \\
 &= 212.68 \text{ lb/acre/day} \\
 \text{where } s &= 90 \text{ \% silt} \\
 p &= 120 \text{ days of rain greater than or equal to 0.01 inches} \\
 f &= 30 \text{ \% of wind greater than or equal to 12 mph}
 \end{aligned}$$

### Mixing Agent Loading and Unloading

The following calculations determine the amount of emissions created by mixing agent loading and unloading, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follows:

PM-10 Emissions:

$$\begin{aligned}
 E &= k \cdot (0.0032) \cdot ((U/5)^{1.3}) / ((M/2)^{1.4}) \\
 &= 9.22E-03 \text{ lb PM-10/ton} \\
 &= 1.95E-02 \text{ lb PM/ton} \\
 \text{where } k &= 0.35 \text{ (particle size multiplier for } <10\mu\text{m)} \\
 &= 0.74 \text{ (particle size multiplier for } <30\mu\text{m)} \\
 U &= 12 \text{ mph mean wind speed} \\
 M &= 1.0 \text{ minimum material moisture content (\%)}
 \end{aligned}$$

$$\text{Mixing Agent: } \frac{438,000 \text{ ton/yr}}{2,000 \text{ lb/ton}} \cdot \text{No. of material handling activities} \cdot E_f \text{ (lb/ton of material)} = (\text{ton/yr})$$

$$\text{* No. of Mixing Agent Handling Activities: } 3$$

\* Mixing agent handling activities include storage pile load-in, storage pile load-out, and loading into solidification basin.

**Total PM 10 Emissions:** 6.06 tons/yr  
**Total PM Emissions:** 12.81 tons/yr



## Appendix A: Emission Calculations Particulate Matter Emissions (cont'd)

### Solidified Waste Loading and Unloading

The following calculations determine the amount of emissions created by solidified waste loading and unloading, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follows:

PM-10 Emissions:

$$\begin{aligned} E &= k \cdot (0.0032) \cdot \left( \frac{(U/5)^{1.3}}{(M/2)^{1.4}} \right) \\ &= 6.65\text{E-}04 \text{ lb PM-10/ton} \\ &\quad 1.41\text{E-}03 \text{ lb PM/ton} \\ \text{where } k &= 0.35 \text{ (particle size multiplier for } <10\mu\text{m)} \\ &\quad 0.74 \text{ (particle size multiplier for } <30\mu\text{m)} \\ U &= 12 \text{ mph mean wind speed} \\ M &= 6.5 \text{ minimum material moisture content (\%)} \end{aligned}$$

$$\text{Solidified Waste: } \frac{569,400 \text{ ton/yr}}{2,000 \text{ lb/ton}} \cdot \text{No. of material handling activities} \cdot E_f \text{ (lb/ton of material)} = (\text{ton/yr})$$

$$\text{* No. of Solidified Waste Handling Activities: } 2$$

\* Solidified waste handling activities include unloading from solidification basin and loading into dump truck.

$$\begin{aligned} \text{Total PM 10 Emissions:} & \quad 0.38 \text{ tons/yr} \\ \text{Total PM Emissions:} & \quad 0.80 \text{ tons/yr} \end{aligned}$$

### Solid Waste Dumping Operations

The following calculations determine the amount of emissions created by solid waste dumping, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follows:

PM-10 Emissions:

$$\begin{aligned} E &= k \cdot (0.0032) \cdot \left( \frac{(U/5)^{1.3}}{(M/2)^{1.4}} \right) \\ &= 2.08\text{E-}04 \text{ lb PM-10/ton} \\ &\quad 4.40\text{E-}04 \text{ lb PM/ton} \\ \text{where } k &= 0.35 \text{ (particle size multiplier for } <10\mu\text{m)} \\ &\quad 0.74 \text{ (particle size multiplier for } <30\mu\text{m)} \\ U &= 12 \text{ mph mean wind speed} \\ M &= 15.0 \text{ average material moisture content (\%)} \end{aligned}$$

$$\text{Refuse Acceptance: } \frac{569,400 \text{ ton/yr}}{2,000 \text{ lb/ton}} \cdot \text{No. of material handling activities} \cdot E_f \text{ (lb/ton of material)} = (\text{ton/yr})$$

$$\text{* No. of Solidified Waste Handling Activities: } 1$$

\* Solidified waste handling activities include unloading from solidification basin and loading into dump truck.

$$\begin{aligned} \text{Total PM 10 Emissions:} & \quad 0.06 \text{ tons/yr} \\ \text{Total PM Emissions:} & \quad 0.13 \text{ tons/yr} \end{aligned}$$

## Appendix A: Emission Calculations Particulate Matter Emissions (cont'd)

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### Unpaved Roadways

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 13.2.2.2.

#### I. Liquid Waste Tankers

	1 trip/hr x		
	0.133 mile/trip x		
	2 (round trip) x		
	8760 hr/yr =	2330.16 miles per year	

  

$$E_f = k \left[ \left( \frac{s}{12} \right)^{0.8} \right] \left[ \left( \frac{W}{3} \right)^b \right] \left[ \left( \frac{M}{0.2} \right)^c \right] \left[ \frac{(365-p)}{365} \right] \left( \frac{S}{15} \right)$$

$$= 1.98 \text{ lb PM-10/mile}$$

$$= 9.88 \text{ lb PM/mile}$$

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)

s = 6.4 mean % silt content of unpaved roads

b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)

c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)

W = 40 tons average vehicle weight

M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

S = 10.0 mph speed limit

p = 120.0 number of days with at least 0.01 in. of precipitation per year

  

<b>PM-10:</b>	1.98 lb/mi x	2330.16 mi/yr =	<b>2.31 tons/yr</b>
		2000 lb/ton	

  

<b>PM:</b>	9.88 lb/mi x	2330.16 mi/yr =	<b>11.51 tons/yr</b>
		2000 lb/ton	

#### II. Dump Trucks

	4 trip/hr x		
	0.133 mile/trip x		
	2 (round trip) x		
	8760 hr/yr =	9320.64 miles per year	

  

$$E_f = k \left[ \left( \frac{s}{12} \right)^{0.8} \right] \left[ \left( \frac{W}{3} \right)^b \right] \left[ \left( \frac{M}{0.2} \right)^c \right] \left[ \frac{(365-p)}{365} \right] \left( \frac{S}{15} \right)$$

$$= 1.67 \text{ lb PM-10/mile}$$

$$= 7.97 \text{ lb PM/mile}$$

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)

s = 6.4 mean % silt content of unpaved roads

b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)

c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)

W = 26 tons average vehicle weight

M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

S = 10.0 mph speed limit

p = 120.0 number of days with at least 0.01 in. of precipitation per year

  

<b>PM-10:</b>	1.67 lb/mi x	9320.64 mi/yr =	<b>7.78 tons/yr</b>
		2000 lb/ton	

  

<b>PM:</b>	7.97 lb/mi x	9320.64 mi/yr =	<b>37.13 tons/yr</b>
		2000 lb/ton	

#### III. Front End Loaders

	27 trip/hr x		
	0.057 mile/trip x		
	2 (round trip) x		
	8760 hr/yr =	26963.28 miles per year	

  

$$E_f = k \left[ \left( \frac{s}{12} \right)^{0.8} \right] \left[ \left( \frac{W}{3} \right)^b \right] \left[ \left( \frac{M}{0.2} \right)^c \right] \left[ \frac{(365-p)}{365} \right] \left( \frac{S}{15} \right)$$

$$= 1.14 \text{ lb PM-10/mile}$$

$$= 4.94 \text{ lb PM/mile}$$

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)

s = 6.4 mean % silt content of unpaved roads

b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)

c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)

W = 10 tons average vehicle weight

M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

S = 10.0 mph speed limit

p = 120.0 number of days with at least 0.01 in. of precipitation per year

  

<b>PM-10:</b>	1.14 lb/mi x	26963.28 mi/yr =	<b>15.35 tons/yr</b>
		2000 lb/ton	

  

<b>PM:</b>	4.94 lb/mi x	26963.28 mi/yr =	<b>66.61 tons/yr</b>
		2000 lb/ton	

# **Appendix A: Emission Calculations** **Particulate Matter Emissions (cont'd)**

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## **Unpaved Roadways (cont'd)**

### **IV. Public Hauler**

$$\begin{aligned}
 &1 \text{ trip/hr} \times \\
 &0.39 \text{ mile/trip} \times \\
 &2 \text{ (round trip)} \times \\
 &8760 \text{ hr/yr} = 6832.8 \text{ miles per year}
 \end{aligned}$$

$$\begin{aligned}
 E_f &= k \left[ \frac{s}{12} \right]^{0.8} \left[ \frac{W}{3} \right]^b \left[ \frac{M}{0.2} \right]^c \left[ \frac{(365-p)}{365} \right]^{15} \left( \frac{S}{15} \right) \\
 &= 0.60 \text{ lb PM-10/mile} \\
 &= 2.21 \text{ lb PM/mile} \\
 \text{where } k &= 2.6 \text{ (particle size multiplier for PM-10)} \quad (k=10 \text{ for PM-30 or TSP}) \\
 s &= 6.4 \text{ mean \% silt content of unpaved roads} \\
 b &= 0.4 \text{ Constant for PM-10 (b = 0.5 for PM-30 or TSP)} \\
 c &= 0.3 \text{ Constant for PM-10 (c = 0.4 for PM-30 or TSP)} \\
 W &= 2 \text{ tons average vehicle weight} \\
 M &= 0.2 \text{ surface material moisture content, \% (default is 0.2 for dry conditions)} \\
 S &= 10.0 \text{ mph speed limit} \\
 p &= 120.0 \text{ number of days with at least 0.01 in. of precipitation per year}
 \end{aligned}$$

$$\text{PM-10: } \frac{0.60 \text{ lb/mi} \times 6832.8 \text{ mi/yr}}{2000 \text{ lb/ton}} = 2.04 \text{ tons/yr}$$

$$\text{PM: } \frac{2.21 \text{ lb/mi} \times 6832.8 \text{ mi/yr}}{2000 \text{ lb/ton}} = 7.55 \text{ tons/yr}$$

### **V. Landfill Owned/Industrial Haulers**

$$\begin{aligned}
 &6 \text{ trip/hr} \times \\
 &0.39 \text{ mile/trip} \times \\
 &2 \text{ (round trip)} \times \\
 &8760 \text{ hr/yr} = 40996.8 \text{ miles per year}
 \end{aligned}$$

$$\begin{aligned}
 E_f &= k \left[ \frac{s}{12} \right]^{0.8} \left[ \frac{W}{3} \right]^b \left[ \frac{M}{0.2} \right]^c \left[ \frac{(365-p)}{365} \right]^{15} \left( \frac{S}{15} \right) \\
 &= 1.67 \text{ lb PM-10/mile} \\
 &= 7.97 \text{ lb PM/mile} \\
 \text{where } k &= 2.6 \text{ (particle size multiplier for PM-10)} \quad (k=10 \text{ for PM-30 or TSP}) \\
 s &= 6.4 \text{ mean \% silt content of unpaved roads} \\
 b &= 0.4 \text{ Constant for PM-10 (b = 0.5 for PM-30 or TSP)} \\
 c &= 0.3 \text{ Constant for PM-10 (c = 0.4 for PM-30 or TSP)} \\
 W &= 26 \text{ tons average vehicle weight} \\
 M &= 0.2 \text{ surface material moisture content, \% (default is 0.2 for dry conditions)} \\
 S &= 10.0 \text{ mph speed limit} \\
 p &= 120.0 \text{ number of days with at least 0.01 in. of precipitation per year}
 \end{aligned}$$

$$\text{PM-10: } \frac{1.67 \text{ lb/mi} \times 40996.8 \text{ mi/yr}}{2000 \text{ lb/ton}} = 34.21 \text{ tons/yr}$$

$$\text{PM: } \frac{7.97 \text{ lb/mi} \times 40996.8 \text{ mi/yr}}{2000 \text{ lb/ton}} = 163.32 \text{ tons/yr}$$

### **VI. Municipal Haulers**

$$\begin{aligned}
 &1 \text{ trip/hr} \times \\
 &0.39 \text{ mile/trip} \times \\
 &2 \text{ (round trip)} \times \\
 &8760 \text{ hr/yr} = 6832.8 \text{ miles per year}
 \end{aligned}$$

$$\begin{aligned}
 E_f &= k \left[ \frac{s}{12} \right]^{0.8} \left[ \frac{W}{3} \right]^b \left[ \frac{M}{0.2} \right]^c \left[ \frac{(365-p)}{365} \right]^{15} \left( \frac{S}{15} \right) \\
 &= 1.67 \text{ lb PM-10/mile} \\
 &= 7.97 \text{ lb PM/mile} \\
 \text{where } k &= 2.6 \text{ (particle size multiplier for PM-10)} \quad (k=10 \text{ for PM-30 or TSP}) \\
 s &= 6.4 \text{ mean \% silt content of unpaved roads} \\
 b &= 0.4 \text{ Constant for PM-10 (b = 0.5 for PM-30 or TSP)} \\
 c &= 0.3 \text{ Constant for PM-10 (c = 0.4 for PM-30 or TSP)} \\
 W &= 26 \text{ tons average vehicle weight} \\
 M &= 0.2 \text{ surface material moisture content, \% (default is 0.2 for dry conditions)} \\
 S &= 10.0 \text{ mph speed limit} \\
 p &= 120.0 \text{ number of days with at least 0.01 in. of precipitation per year}
 \end{aligned}$$

$$\text{PM-10: } \frac{1.67 \text{ lb/mi} \times 6832.8 \text{ mi/yr}}{2000 \text{ lb/ton}} = 5.70 \text{ tons/yr}$$

$$\text{PM: } \frac{7.97 \text{ lb/mi} \times 6832.8 \text{ mi/yr}}{2000 \text{ lb/ton}} = 27.22 \text{ tons/yr}$$

# **Appendix A: Emission Calculations** **Particulate Matter Emissions (cont'd)**

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## **Unpaved Roadways (cont'd)**

### **VII. Commercial Haulers**

1 trip/hr x  
0.39 mile/trip x  
2 (round trip ) x  
8760 hr/yr = 6832.8 miles per year

$$E_f = k \left[ \left( \frac{s}{12} \right)^{0.8} \right] \left[ \left( \frac{W}{3} \right)^b \right] \left[ \left( \frac{M}{0.2} \right)^c \right] \left[ \frac{(365-p)}{365} \right] \left( \frac{S}{15} \right)$$

= 1.67 lb PM-10/mile  
= 7.97 lb PM/mile

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)  
s = 6.4 mean % silt content of unpaved roads  
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)  
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)  
W = 26 tons average vehicle weight  
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)  
S = 10.0 mph speed limit  
p = 120.0 number of days with at least 0.01 in. of precipitation per year

$$\text{PM-10: } \frac{1.67 \text{ lb/mi} \times 6832.8 \text{ mi/yr}}{2000 \text{ lb/ton}} = 5.70 \text{ tons/yr}$$

$$\text{PM: } \frac{7.97 \text{ lb/mi} \times 6832.8 \text{ mi/yr}}{2000 \text{ lb/ton}} = 27.22 \text{ tons/yr}$$

### **VIII. Leachate Haulers**

1 trip/hr x  
0.63 mile/trip x  
2 (round trip ) x  
8760 hr/yr = 11037.6 miles per year

$$E_f = k \left[ \left( \frac{s}{12} \right)^{0.8} \right] \left[ \left( \frac{W}{3} \right)^b \right] \left[ \left( \frac{M}{0.2} \right)^c \right] \left[ \frac{(365-p)}{365} \right] \left( \frac{S}{15} \right)$$

= 1.67 lb PM-10/mile  
= 7.97 lb PM/mile

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)  
s = 6.4 mean % silt content of unpaved roads  
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)  
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)  
W = 26 tons average vehicle weight  
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)  
S = 10.0 mph speed limit  
p = 120.0 number of days with at least 0.01 in. of precipitation per year

$$\text{PM-10: } \frac{1.67 \text{ lb/mi} \times 11037.6 \text{ mi/yr}}{2000 \text{ lb/ton}} = 9.21 \text{ tons/yr}$$

$$\text{PM: } \frac{7.97 \text{ lb/mi} \times 11037.6 \text{ mi/yr}}{2000 \text{ lb/ton}} = 43.97 \text{ tons/yr}$$

**Total Potential Emissions from Unpaved Roadways: PM-10: 73.11 tons/yr**

**PM: 340.56 tons/yr**

**Total Controlled Emissions from Unpaved Roadways: PM-10: 36.55 tons/yr**

**PM: 170.28 tons/yr**

Note: Controlled Unpaved Roadway emissions include a 50% PM control efficiency from watering of roadways.

### Appendix A: Emission Calculations VOC and HAP Emissions

**Company Name:** Rumpke of Indiana, LLC  
**Address City IN Zip:** 546 County Road 870 West, Medora, Indiana 47260  
**Operating Permit No.:** 071-11615  
**Pit ID:** 071-00038  
**Reviewer:** Trish Earls  
**Date:** November 30, 1999

#### Solidification Process

Maximum Annual Throughput of Liquid Waste: 14,602,920 gal/yr = 1667 gal/hr  
 Limited Annual Throughput of Liquid Waste: 6,240,000 gal/yr = 1667 gal/hr

Chemical	Concentration (mg/l)*	Potential VOC Emissions***		Potential HAP Emissions		Limited VOC Emissions		Limited HAP Emissions	
		(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Arsenic**	5	N/A	N/A	4.90E-08	2.15E-07	N/A	N/A	4.90E-08	9.18E-08
Barium**	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	0.5	6.96E-03	3.05E-02	6.96E-03	3.05E-02	6.96E-03	1.30E-02	6.96E-03	1.30E-02
Cadmium**	1	N/A	N/A	9.81E-09	4.30E-08	N/A	N/A	9.81E-09	1.84E-08
Carbon Tetrachloride	0.5	6.96E-03	3.05E-02	6.96E-03	3.05E-02	6.96E-03	1.30E-02	6.96E-03	1.30E-02
Chlordane	0.03	4.17E-04	1.83E-03	4.17E-04	1.83E-03	4.17E-04	7.81E-04	4.17E-04	7.81E-04
Chlorobenzene	100	1.39	6.09	1.39	6.09	1.39	2.60	1.39	2.60
Chloroform	6	8.35E-02	0.37	8.35E-02	0.37	8.35E-02	0.16	8.35E-02	0.16
Chromium**	5	N/A	N/A	4.90E-08	2.15E-07	N/A	N/A	4.90E-08	9.18E-08
Cresol & Isomers	200	2.78	12.19	2.78	12.19	2.78	5.21	2.78	5.21
2,4-D**	10	N/A	N/A	9.81E-08	4.30E-07	N/A	N/A	9.81E-08	1.84E-07
1,4-Dichlorobenzene	7.5	0.10	0.46	0.10	0.46	0.10	0.20	0.10	0.20
1,2-Dichloroethane	0.5	6.96E-03	3.05E-02	6.96E-03	3.05E-02	6.96E-03	1.30E-02	6.96E-03	1.30E-02
1,1-Dichloroethylene	0.7	9.74E-03	4.27E-02	9.74E-03	4.27E-02	9.74E-03	1.82E-02	9.74E-03	1.82E-02
2,4-Dinitrotoluene**	0.13	N/A	N/A	1.28E-09	5.58E-09	N/A	N/A	1.28E-09	2.39E-09
Endrin**	0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor**	0.008	N/A	N/A	7.85E-11	3.44E-10	N/A	N/A	7.85E-11	1.47E-10
Hexachlorobenzene	0.13	1.81E-03	7.92E-03	1.81E-03	7.92E-03	1.81E-03	3.39E-03	1.81E-03	3.39E-03
Hexachlorobutadiene	0.5	6.96E-03	3.05E-02	6.96E-03	3.05E-02	6.96E-03	1.30E-02	6.96E-03	1.30E-02
Hexachloroethane	3	4.17E-02	0.18	4.17E-02	0.18	4.17E-02	7.81E-02	4.17E-02	7.81E-02
Lead**	5	N/A	N/A	4.90E-08	2.15E-07	N/A	N/A	4.90E-08	9.18E-08
Lindane**	0.4	N/A	N/A	3.92E-09	1.72E-08	N/A	N/A	3.92E-09	7.34E-09
Mercury**	0.2	N/A	N/A	1.96E-09	8.59E-09	N/A	N/A	1.96E-09	3.67E-09
Methoxychlor**	10	N/A	N/A	9.81E-08	4.30E-07	N/A	N/A	9.81E-08	1.84E-07
Methyl Ethyl Ketone	200	2.78	12.19	2.78	12.19	2.78	5.21	2.78	5.21
Nitrobenzene	2	2.78E-02	0.12	2.78E-02	0.12	2.78E-02	5.21E-02	2.78E-02	5.21E-02
Pentachlorophenol**	100	N/A	N/A	9.81E-07	4.30E-06	N/A	N/A	9.81E-07	1.84E-06
Pyridine	5	6.96E-02	0.30	N/A	N/A	6.96E-02	0.13	N/A	N/A
Selenium**	1	N/A	N/A	9.81E-09	4.30E-08	N/A	N/A	9.81E-09	1.84E-08
Silver**	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethylene	0.7	9.74E-03	4.27E-02	9.74E-03	4.27E-02	9.74E-03	1.82E-02	9.74E-03	1.82E-02
Toxaphene**	0.5	N/A	N/A	4.90E-09	2.15E-08	N/A	N/A	4.90E-09	9.18E-09
Trichloroethylene	0.5	6.96E-03	3.05E-02	6.96E-03	3.05E-02	6.96E-03	1.30E-02	6.96E-03	1.30E-02
2,4,5-Trichlorophenol**	400	N/A	N/A	3.92E-06	1.72E-05	N/A	N/A	3.92E-06	7.34E-06
2,4,6-Trichlorophenol**	2	N/A	N/A	1.96E-08	8.59E-08	N/A	N/A	1.96E-08	3.67E-08
2,4,5-TP (Silvex)**	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	0.2	2.78E-03	1.22E-02	2.78E-03	1.22E-02	2.78E-03	5.21E-03	2.78E-03	5.21E-03
<b>Maximum Emissions</b>		<b>7.34</b>	<b>32.16</b>	<b>7.27</b>	<b>31.86</b>	<b>7.34</b>	<b>13.74</b>	<b>7.27</b>	<b>13.61</b>
<b>Total VOC Concentration (mg/l)</b>	<b>527.76</b>								

#### Methodology:

\* Concentration of each chemical was set at the regulatory level for toxicity as outlined in 40 CFR 60.261.24. This was done in order to obtain the worst-case emissions, since the landfill could not accept any waste with concentrations exceeding these values.

\*\* For chemicals that are solid at standard conditions, and thus not VOC, the emissions were based on the PM emission factor for material handling of the solidified waste. See page 3 of App. A for emission factor.

\*\*\* For chemicals which are VOC, emissions were calculated as follows:

VOC/HAP emissions (lb/hr) = Gal/hr of liquid waste \* 3.785 liters/gal \* Conc. (mg/l) \* 2.205E-06 lbs/mg

Potential VOC/HAP emissions (tons/yr) = VOC/HAP emissions (lb/hr) \* 8760 hrs/yr \* 1/2000 lbs/ton

Limited VOC/HAP emissions (tons/yr) = Limited gal/yr of liquid waste \* 3.785 liters/gal \* Conc. (mg/l) \* 2.205E-06 lbs/mg \* 1/2000 lbs/ton

## Appendix A: Emission Calculations VOC Emissions

**Company Name:** Rumpke of Indiana, LLC  
**Address City IN Zip:** 546 County Road 870 West, Medora, Indiana 47260  
**Operating Permit No.:** 071-11615  
**Plt ID:** 071-00038  
**Reviewer:** Trish Earls  
**Date:** November 30, 1999

### Sanitary Landfill

Landfill Capacity: 2,040,200 Mg (from Design Capacity Report)  
 1996 Refuse Acceptance Rate: 152,226.6 tons/yr (Provided by Rumpke)  
 1997 Refuse Acceptance Rate: 189,132.0 tons/yr (Provided by Rumpke)  
 1998 Refuse Acceptance Rate: 175,163.0 tons/yr (Provided by Rumpke)  
 Refuse In Place: 1,174,688 Mg (Based on refuse in place as of 1996 from design capacity report, USEPA's Landfill Model (version 2.01) run, and actual waste acceptance rates from 1996, 1997, and 1998.)

Lo: 100.0 m<sup>3</sup>/Mg  
 k: 0.04 /yr  
 NMOC: 595.0 ppmv  
 Methane: 50% by volume

Pollutant	Potential Emissions*	
	(Mg/yr)	(Tons/yr)
Methane	4335.00	4777.17
NMOC	27.71	30.54
OC (Methane + NMOC)	4362.71	4807.71
<b>Non-VOC Pollutants</b>		
1,1,1-Trichloroethane	0.03	0.03
Acetone	0.22	0.25
Dichloromethane	0.66	0.73
Ethane	17.96	19.79
Methane	4335.00	4777.17
Perchloroethylene	0.33	0.36
Dichlorodifluoromethane	1.03	1.14
Chlorodifluoromethane	0.06	0.07
<b>Total Non-VOC</b>	<b>4355.30</b>	<b>4799.54</b>
<b>Total VOC</b>	<b>7.42</b>	<b>8.17</b>

### Methodology:

\* Maximum values based on USEPA Landfill Gas Emissions Model (version 2.01), AP-42 defaults for Lo, k, NMOC concentration for landfill sites with no co-disposal of industrial waste, and individual compound concentrations.

## Appendix A: Emission Calculations HAP Emissions

**Company Name:** Rumpke of Indiana, LLC  
**Address City IN Zip:** 546 County Road 870 West, Medora, Indiana 47260  
**Operating Permit No.:** 071-11615  
**Pit ID:** 071-00038  
**Reviewer:** Trish Earls  
**Date:** November 30, 1999

### Sanitary Landfill

Landfill Capacity: 2,040,200 Mg (from Design Capacity Report)  
 1996 Refuse Acceptance Rate: 152,226.6 tons/yr (Provided by Rumpke)  
 1997 Refuse Acceptance Rate: 189,132.0 tons/yr (Provided by Rumpke)  
 1998 Refuse Acceptance Rate: 175,163.0 tons/yr (Provided by Rumpke)  
 Refuse In Place: 1,174,688 Mg (Based on refuse in place as of 1996 from design capacity report, USEPA's Landfill Model (version 2.01) run, and actual waste acceptance rates from 1996, 1997, and 1998.)

Lo: 100.0 m<sup>3</sup>/Mg  
 k: 0.04 /yr  
 NMOC: 595.0 ppmv  
 Methane: 50% by volume

Pollutant	Potential Emissions*	
	(Mg/yr)	(Tons/yr)
1,1,1-Trichloroethane	0.03	0.03
1,1,2,2-Tetrachloroethane	0.10	0.11
1,1,2-Trichloroethane	0.01	0.01
1,1-Dichloroethane	0.13	0.14
1,1-Dichloroethene	0.01	0.01
1,2-Dichloroethane	0.02	0.02
1,2-Dichloropropane	0.01	0.01
Acrylonitrile	0.33	0.36
Benzene	0.08	0.09
Carbon Disulfide	0.02	0.03
Carbon Tetrachloride	3.3E-03	3.7E-03
Carbonyl Sulfide	0.02	0.02
Chlorobenzene	0.02	0.02
Chloroethane	0.05	0.06
Chloroform	1.2E-03	1.4E-03
Chloromethane	0.03	0.04
Dichlorobenzene	0.02	0.02
Dichloromethane	0.66	0.73
Ethylbenzene	0.26	0.29
Ethylene Dibromide	1.0E-04	1.1E-04
Hexane	0.31	0.34
Mercury	0.01	0.01
Methyl Ethyl Ketone	0.28	0.31
Methyl Isobutyl Ketone	0.07	0.08
Perchloroethylene	0.33	0.36
Toluene	1.96	2.16
Trichloroethene	0.20	0.22
Vinyl Chloride	0.25	0.28
Xylene	0.69	0.76
<b>Total HAP</b>	<b>5.91</b>	<b>6.52</b>

#### Methodology:

\* Maximum values based on USEPA Landfill Gas Emissions Model (version 2.01), AP-42 defaults for Lo, k, NMOC concentration for landfill sites with no co-disposal of industrial waste, and individual compound concentrations.

**Appendix A: Emission Calculations  
Internal Combustion Engines  
Insignificant Activities**

**Company Name: Rumpke of Indiana, LLC**  
**Address City IN Zip: 546 County Road 870 West, Medora, Indiana 47260**  
**Operating Permit No.: 071-11615**  
**Plt ID: 071-00038**  
**Reviewer: Trish Earls**  
**Date: November 30, 1999**

**A. Emissions calculated based on output rating (hp) for units firing diesel fuel**

Heat Input Capacity                      Potential Throughput  
Horsepower (hp)                              hp-hr/yr

80.0	700800.0
------	----------

Heat Input Capacity includes: one (1) 50 hp diesel-fired water pump and one (1) 30 hp diesel-fired light plant.

Emission Factor in lb/hp-hr	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067
Potential Emissions in tons/yr	0.77	0.77	0.72	10.86	0.88	2.34

**B. Emissions calculated based on output rating (hp) for units firing gasoline**

Heat Input Capacity                      Potential Throughput                      Limited Fuel Throughput  
Horsepower (hp)                              hp-hr/yr                              gal/yr

61.0	534360.0	23717.0
------	----------	---------

Heat Input Capacity includes: two (2) 8 hp gasoline-fired water pumps, one (1) 16 hp gasoline-fired generator, one (1) 18 hp gasoline-fired tire cutter, and one (1) 11 hp gasoline-fired pressure washer.

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0007	0.0007	0.0006	0.0110	0.0216	0.4390
Emission Factor in lb/MMBtu	0.1000	0.1000	0.0840	1.6300	3.0300	62.7000
Potential Emissions in tons/yr	0.19	0.19	0.16	2.94	5.77	117.29
Limited Emissions in tons/yr	0.15	0.15	0.13	2.51	4.67	96.66

Note: Limited fuel throughput is based on a gasoline heating value of 130,000 Btu/gal based on USEPA's AP-42. This will limit source-wide CO emissions to less than 100 tons per year to avoid the requirements of 326 IAC 2-7.

**Methodology**

Potential Throughput (hp-hr/yr) = hp \* 8760 hr/yr

Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-2

Potential Emissions (tons/yr) = [Potential Throughput (hp-hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton )

Limited Emissions (tons/yr) = [Fuel input rate (gal/yr) x 0.13 MMBtu/gal x Emission Factor (lb/MMBtu)] / (2,000 lb/ton )

\*PM emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.